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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,420

07/11/2008

Shin Hasegawa

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SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

DOAN, TRANG T

ART UNIT

PAPER NUMBER

2431

NOTIFICATION DATE

DELIVERY MODE

12/28/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com  
PPROCESSING@SUGHRUE.COM  
USPTO@SUGHRUE.COM

<b>Office Action Summary</b>	<b>Application No.</b> 10/574,420	<b>Applicant(s)</b> HASEGAWA, SHIN	
	<b>Examiner</b> TRANG DOAN	<b>Art Unit</b> 2431	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

1. This action is in response to the amendment filed on 08/31/2009.
2. Claims 1 and 3 have been amended.
3. Claims 1-4 are pending for consideration.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

5. Claims 2 and 4 are objected to because of the following informalities:
  - a. In line 1 of claim 2, the phrase "A programmable-logic-controller peripheral device" should be changed to "The peripheral device for the programmable logic controller".
  - b. In line 1 of claim 4, the phrase "A programmable-logic-controller peripheral device" should be changed to "The peripheral device for the programmable logic controller".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2431

7. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 1 recites the limitations "the authentication data" and "the programmable logic controller peripheral device" in line 4 and line 6, page 2 of the Claims. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 3 recites the limitations "the authentication data" and "the programmable logic controller peripheral device" in line 2 and line 5, page 4 of the Claims. There is insufficient antecedent basis for this limitation in the claim.

10. The dependent claims are depended on the rejected base claim, and are rejected for the same rationales.

### ***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mehta et al. (US 7624281) (hereinafter Mehta) in view of Tatebayashi et al. (US 20050102527) (hereinafter Tatebayashi).

Regarding claim 1, Mehta discloses a peripheral device for a programmable logic controller, the peripheral device comprising:

an inputting means for inputting peripheral device authentication data being the same as the authentication data stored in a storage means of the programmable logic controller (Mehta: see figure 2; column 5 lines 38-67: user input housing; column 7 lines 8-25; column 7 lines 40-50; and column 8 lines 43-48: authentication module, emulation controller, input-output buffer...implemented as part of a single or multiple components (or any combination thereof (e.g., a programmable logic controller)));

Mehta does not teach an encryption means for encrypting peripheral device authentication data used in authentication for authorizing use of programmable logic controller peripheral device itself, encrypting data used in the programmable logic controller, and encrypting authentication data that is established in the programmable logic controller and that verifies whether or not communication with the programmable logic controller is authorized for the data used in the programmable logic controller; an external storage means for storing at least peripheral device authentication data having been encrypted; an internal storage means for storing at least peripheral device authentication data having been encrypted; a decryption means for decrypting the peripheral device authentication data, the data used in the programmable logic controller, and the authentication data; and verification means for determining whether or not Use of the programmable logic controller peripheral device is authorized, by checking peripheral device authentication data read out from the external storage

Art Unit: 2431

means and decrypted, against peripheral device authentication data read out from the internal storage means and decrypted.

However, Tatebayashi discloses an encryption means for encrypting peripheral device authentication data used in authentication for authorizing use of programmable logic controller peripheral device itself, encrypting data used in the programmable logic controller, and encrypting authentication data that is established in the programmable logic controller and that verifies whether or not communication with the programmable logic controller is authorized for the data used in the programmable logic controller (Tatebayashi: see figure 2, figure 5 and paragraphs 0118, 0145, 0186 and 0248); n external storage means for storing at least peripheral device authentication data having been encrypted (Tatebayashi: paragraphs 0083, 0101 and 0109); n internal storage means for storing at least peripheral device authentication data having been encrypted (Tatebayashi: paragraphs 0145 and 0160); decryption means for decrypting the peripheral device authentication data, the data used in the programmable logic controller, and the authentication data (Tatebayashi: see figure 5 item 333 and paragraphs 0145, 0160, 0170 and 0248); and verification means for determining whether or not Use of the programmable logic controller peripheral device is authorized, by checking peripheral device authentication data read out from the external storage means and decrypted, against peripheral device authentication data read out from the internal storage means and decrypted (Tatebayashi: paragraphs 0109 and 0181).

Therefore, it would have been obvious to a person skilled art at the time the invention was made to have included in Mehta the feature of Tatebayashi as discussed

Art Unit: 2431

above because there is a need for insuring secure data transmission, including transactional and credit card information, and for preventing unauthorized copying and use of software programs or packages (Tatebayashi: page 1).

Regarding claim 2, Mehta as modified discloses wherein when communication between the programmable logic controller and the programmable logic controller peripheral device is via a network: the encryption means is further for encrypting network authentication data for authorizing the communication between the programmable logic controller and the programmable logic controller peripheral device (Tatebayashi: paragraph 0248); the external storage means is further for storing the network authentication data (Tatebayashi: see figure 4); and the decryption means is further for decrypting the network authentication data stored in the external storage means (Tatebayashi: see figure 5 item 333 and paragraphs 0145, 0160 and 0170). The same motivation was utilized in claim 1 applied equally well to claim 2.

Regarding claim 3, this claim has limitations that is similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

Regarding claim 4, Mehta as modified discloses wherein when communication between the programmable logic controller and the programmable logic controller peripheral device is via a network: the encrypter is further for encrypting network authentication data for authorizing the communication between the programmable logic

Art Unit: 2431

controller and the programmable logic controller peripheral device (paragraph 0248); the external storage is further for storing the network authentication data (Tatebayashi: paragraphs 0083, 0101 and 0109); and the decrypter is further for decrypting the network authentication data stored in the external storage (Tatebayashi: see figure 5 item 333 and paragraphs 0145, 0160 and 0170). The same motivation was utilized in claim 1 applied equally well to claim 4.

### ***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRANG DOAN whose telephone number is (571)272-0740. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Trang Doan/  
Examiner, Art Unit 2431  
/Syed Zia/  
Primary Examiner, Art Unit 2431